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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/606,839 | 06/28/2000 | James P. Kardach | 042390.P7017 | 6948 |

7590 06/04/2003

Mark L Watson
Blakely Sokoloff Taylor & Zafman LLP
12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026

EXAMINER

BANANKHAH, MAJID A

ART UNIT

PAPER NUMBER

2127

DATE MAILED: 06/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.
09/606,839

Applicant(s)
Kardash, J.

Examiner
Majid Banankhah

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2127



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 28, 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other:

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1. This office action in response to application filed on June 28, 2000. Claims 1-17 are presented for examination.

2. Applicants are requested to note PTO-948 concerning notice of draftsman's patent drawing review. However, correction of the noted defect can be deferred until the application is allowed by the examiner. Applicants are reminded of the provision of MPEP 608.02(q) and (r) regarding a separate letter to the chief Draftsman.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1 recites the limitation "the real-time data" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Additionally, the last step in the claim is indefinite. First real-time data is received and in the last step real-time event is processed. This step does not necessarily imply that the real-time data is being processed, because, in the second step,

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generating real-time event that indicate a request to process real-time data is a form of processing the real time event.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Collins et al. (U.S.Pat No. 6,507,818).

Per claim 1, Collins teaches, Receiving a real time analog data at a personal computer implementing a general purpose operating system, generating real time event indicating a request to process real-time data; and determining whether the real time event at the personal computer indicating a request to process the real time data (receiving real time mode of operation and real-time event, col. 2, lines 46-68, continued on col. 3, lines 1-9); processing the real-time event if the real time event has a higher priority than the first event (The events in

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queue 38 preferably are priority-ordered based on relative priorities associated with each type of event, col. 6, lines 49-68, continued on col. 7, lines 1-7).

per claim 2, continue Processing the first event if the real-time event does not have a higher priority than the first process (According to the priority-ordered structure of queue 38, for example, the highest priority event must be dequeued first, regardless of the order in which the events were enqueued. In contrast, the time-ordered structure of queue 58 requires that internal events are to be dequeued in ascending order of their transaction-times, with the lowest transaction-time being chronologically the earliest, col. 11, lines 53-68-, continued on col. 12, lines 1-3).

7. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this

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section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

3-6

8. Claims 3-7 are rejected under 35 U.S.C. § 103 as being unpatentable over Collins et al. (U.S.Pat No. 6,507,818) in view of Mays et al (U.S.Pat No. 6,035,321).

Per claims 3-6, the reference of Collins fails to explicitly teach of the "saving the state of the first event at the personal computer prior to processing the real-time event; and processing the prior event after processing of the real-time event has completed". However, saving the state of a thread or an event on behalf of the high priority event, and restoring the state of the prior event for execution is well known in the art as it is evidenced by Mays (Accordingly, when a low level, high priority context is designated for handling an event, **the kernel will use the priority of that context to preempt the execution of tasks having a lower execution priority**, i.e. tasks that are captured by higher level contexts. A pointer to the context is stored in the address space of the task, and a wake up semaphore is posted 1415 for the task, col. 22, lines 10-51). The reason for combining is to give the higher priority events (or task or thread or process) to be processed before the lower priority

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events and return to the regular execution once the execution of the high priority event is completed. Therefore, it would have been obvious for one ordinary skill in the art at the time the invention was made to allow lower priority events be saved in favor of the high priority events and get back to processing of the lower priority event. The motivation would be obvious because, the lower priority event need to be processed once the urgency of the high priority event no longer exist.

Per claim 7, the Mays teaches of operating system and bus in col. 7, lines 51-68, continued on col. 8, lines 1-12.

9. Claims 8-11, and 13-15, are rejected under 35 U.S.C. § 103 as being unpatentable over Collins et al. (U.S.Pat No. 6,507,818) in view of Mays et al (U.S.Pat No. 6,035,321), further in view of Matsui et al. (U.S. Pat. No. 5,774,701).

Per claims 8, and 13, the modified Collins fails to explicitly teach of a CPU and a timing signal and generating real time event. However, using clock signal to generate real time event is well known in the art as it is evidenced by Matsui (col. 2, lines 46-65), for the reason to drive the processor to operate at different speed. Therefore, it would have been obvious for one ordinary skill in the art at the time the invention was made to use timing signal at predetermined time interval to generate real

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time event and operate the CPU at different speed.

Regarding claim 9, see Mays, col. 14, lines 17-21, and Fig. 7A.

Regarding use of register in claim 10, and 14, See Matsui col. 5, lines 18-35.

Per claim 11, and 15, See Collins, col. 6, lines 49-68.

10. Claims 12, 16, and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Collins et al. (U.S.Pat No. 6,507,818) in view of Mays et al (U.S.Pat No. 6,035,321), further in view of Matsui et al. (U.S. Pat. No. 5,774,701), and further in view of Raamot.

Per claims 12, 16, and 17, the modified Collins fails to explicitly teach of analog to digital converter, However, the use of analog to digital converter is well known in the art as it is evidenced by Raamot, in col. 12, lines 30-43, for the reason to be able to process analog data. Therefore, it would have been obvious for one ordinary skill in the art at the time the invention was made to use Raamot's analog to digital converter.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier

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communications from the examiner should be directed to **Majid A. Banankhah** whose voice telephone number is (703) 308-6903. A voice mail service is also available at this number.

All response sent to U.S. Mail should be mailed to:
Commissioner of Patent and Trademarks
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park Two, 2021 Crystal Drive, Arlington. VA, Six Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses to the Examiner.

All Formal or Official Faxes must be signed and sent to either (703) 308-9051 or (703) 308-9052. Official faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the office, e.g., Finance Division for fee charging, etc.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Majid Banankhah

May 30, 2003

MAJID A. BANANKHAH
PRIMARY EXAMINER